

INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN RE
INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE
CHICAGO, ROCK ISLAND & PACIFIC RAILWAY AT BECKETT,
OKLA., ON MAY 27, 1930.

July 30, 1930.

To the Commission:

On May 27, 1930, there was a collision between a freight train and the engine of another freight train engaged in switching, on the Chicago, Rock Island & Pacific Railway at Beckett, Okla., resulting in the injury of three employees.

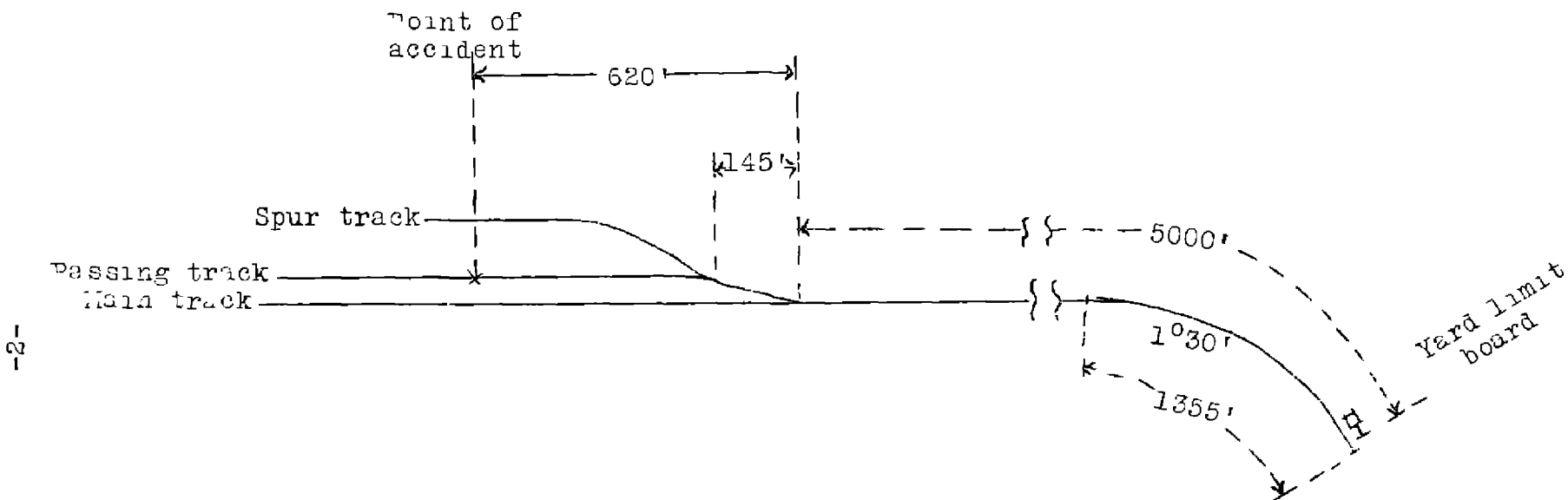
Location and method of operation

This accident occurred on Subdivision 46 of the Second District of the Oklahoma-Southern Division, extending between El Reno and Waurika, Okla., a distance of 99.7 miles; this is a single-track line over which trains are operated by timetable and train orders, no block-signal system being in use. The accident occurred within yard limits and on the passing track at Beckett, at a point 620 feet west of the east switch, this switch being 5,000 feet west of the east yard-limit board; the passing track is 3,298 feet in length and parallels the main track on the north. Approaching the switch from the east, there is a $1^{\circ} 30'$ curve to the left 1,355 feet in length, followed by 3,760 feet of tangent to the switch, this tangent continuing for a considerable distance west of that point. The grade for westbound trains is slightly descending.

The switch stand of the east switch of the passing track is located on the north side of the track, at a point about 9 feet from the track center; the height of the mast is 7 feet 9 inches from the top of the tie and there is a switch lamp mounted on top of the mast, night indications being red when the switch is open and green when it is closed. At a point 145 feet west of this switch, there is another high switch stand, located on the same side of the track, at a point about 20 feet from the track; the switch at this latter point leads off the passing track to a spur track, the spur track being 639 feet in length and paralleling the main and passing tracks on the north; this latter switch stand is also equipped with a switch lamp, displaying red and green indications. An unobstructed view of the point where the accident occurred can be had from the cab of an approaching westbound engine.

The weather was clear at the time of the accident, which occurred about 8.40 p.m.

North



-2-

Inv. 1643
Chicago, Rock Island & Pacific Ry.
Beckett, Okla.
May 27, 1930.

Description

Westbound third-class freight train No. 85 consisted of 27 cars and a caboose, hauled by engine 1530, and was in charge of Conductor Harrington and Engineman White. This train passed Duncan, the last open office, 5.7 miles east of Beckett, at 5.55 p.m., according to the train sheet, 4 hours and 55 minutes late, arrived at Beckett about 6.30 p.m., and entered the passing track. Switching operations were in progress and the east switch of the passing track was left open, in order to facilitate this work; engine 1530, headed west, was east of its caboose on the passing track, and coupled to six empty tank cars, when the rear end of the tender was struck by train No. 93.

Westbound second-class freight train No. 93 consisted of 53 cars and a caboose, hauled by engine 2686, and was in charge of Conductor Spears and Engineman Merchant. This train passed Duncan at 8.31 p.m., three hours and one minute late, and on arrival at Beckett it entered the passing track switch and collided with the tender of engine 1530 while traveling at a speed variously estimated to have been between 8 and 30 miles per hour.

Both engines were derailed and badly damaged, but remained upright; the tender of engine 1530 was shoved into the cab, while the front end of engine 2686 was damaged. Several of the cars in train No. 93 were also damaged, as was a tank car that stood on the passing track west of the six empty tank cars being handled by engine 1530, that tank car being struck by the empty cars and moved westward on the passing track from 300 to 1,000 feet, where it collided with a cut of standing cars. The employees injured were the engineman, fireman and head brakeman of train No. 93.

Summary of evidence

Engineman Merchant, of train No. 93, stated that the speed of his train was about 35 miles per hour and that approaching the east end of the curve at Beckett, the east yard-limit board being located on the curve near that end, he instructed the fireman and head brakeman to be on the lookout for the local, train No. 85, saying that it should be gone, but might possibly be there. The engineman then closed the throttle, opened the drifting valve, and made about a 15-pound service brake pipe reduction, which reduced the speed to about 20 miles per hour, at which time the engine was nearing the leaving end of the curve. Engineman Merchant said that the fireman and brakeman called "all clear" and he then released the air brakes, moving the brake-valve handle to full-release position, at which time the engine was from 6 to 10 car-lengths inside yard limits. He then opened the throttle, looked at the gauge to see whether

the brake pipe was being recharged, and speed was increased to between 25 and 30 miles per hour. On reaching the tangent track, all the indications he saw displayed were either green or white, and he said he thought the green indications were those displayed by the switch lamps of the passing-track switch and the spur-track switch. When nearing the passing-track switch he observed a signal given by some one on the ground, which he took to be an "easy" signal given in connection with switching operations in the yard, but it was followed almost immediately by a violent stop signal, and he therefore closed the throttle and applied the air brakes in emergency, when about 25 car-lengths from the switch, at which time he estimated the speed to have been about 30 miles per hour, and he also opened the sanders, reversed the engine and worked steam, saying that the speed was about 15 or 18 miles per hour on entering the switch and about 12 or 15 miles per hour when he jumped, about 3 car-lengths from the tender of engine 1530. Engineman Merchant said that a full emergency effect was not obtained, as the previous air-brake application had been released only from 20 to 30 seconds previously, and that the brake valve was still in full release, with the train line being recharged, when the emergency application was made. The headlight was burning brightly and the air brakes had been tested and also worked properly in making various stops en route. Engineman Merchant said he was thoroughly familiar with the requirements relative to moving under control within yard limits unless the main track is seen or known to be clear, but there was no doubt in his mind that the switch was closed and that train No. 85 was in the clear; he said he mistook the green indication displayed by a marker on the caboose of train No. 85, the caboose being on the passing track and more than 2,000 feet west of the passing-track switch, for the indication of the passing-track switch lamp, and he did not realize that the switch was open and a red indication displayed, with the light burning very dimly, until it was only 15 car-lengths distant, too late to avert the accident.

Fireman Huggins, of train No. 93, stated that the speed of his train was about 35 miles per hour on passing the yard-limit board; while rounding the curve he saw two green indications displayed, which he assumed to be the passing-track and spur-track switch lamps, and called "all clear." When the engine reached the straight track he saw an "easy" signal given with a lighted white lantern, following which a stop signal was given with the lantern. Fireman Huggins said he twice called the attention of Engineman Merchant to the stop signal, first when about 45 car-lengths from the passing-track switch and next when the engine was about 15 car-lengths from the switch, which he then observed was displaying a red indication, and then the engineman closed the throttle and applied the air brakes in emergency, at which time the speed was about 30 miles per hour, the fireman

jumped as the engine was entering the turnout at a speed between 20 and 25 miles per hour. Fireman Huggins said that when he called "all clear" while rounding the curve everything appeared to be all right, but that at that distance he could not determine with any degree of certainty whether the track ahead was clear all the way through the yard limits of Beckett, and he merely meant that everything looked clear as far as he could see. Fireman Huggins mistook the indication displayed by a green marker on the caboose of train No. 85 for the indication of the passing-track switch lamp, the other caboose marker being obscured by engine 1530 on the passing track, he said that the passing-track switch lamp was burning dimly and that he did not see the red indication displayed by it until he called the engineman's attention the second time to the stop signal given with the lighted white lantern. Fireman Huggins admitted that when he called "all clear," a false impression probably was conveyed to the engineman.

Head Brakeman Burchell, of train No. 93, stated that the first time he observed the red indication displayed at the switch of the passing track was after rounding the curve and when within 15 to 25 car-lengths of it, then he saw some one giving stop signals with a white hand lantern. Head Brakeman Burchell further stated that the red indication showed up plainly and that he was not confused as to the two switch lamp indications, one being red and the other green, although the green indication was the brighter of the two; the lamp on the spur-track switch was slightly higher. At the time "all clear" was called to the engineman, it was only intended to give the engineman a line-up as to the way conditions ahead appeared while rounding the curve, until the straight track was reached and the engineman could see for himself and act accordingly. Head Brakeman Burchell said that he felt as though the train was under control when "all clear" was called, but that he was uneasy about the speed within yard limits when he saw the switch. In other respects his testimony was similar to that of Fireman Huggins. Statements of Conductor Spears and Flagman Kreager brought out nothing additional of importance.

Conductor Herrington, of train No. 85, stated that he observed the headlight of train No. 93 when that train was about 20 or 25 car-lengths from the switch, and that he told one of the brakemen to close the switch; the brakeman was about 600 or 650 feet west of the switch and started toward it, then ran in an endeavor to reach it ahead of the approaching train, but was unable to do so as the train was coming too fast. Conductor Herrington said it was the practice to work within yard limits at Beckett in the manner which was being followed in this instance, that is, to leave the passing-track switch open and unattended for short intervals during switching, although it was customary to watch

for trains and to close the switch in order to avoid delay; he thought that the switch could have been closed for train No. 93 had it been moving under proper control within yard limits. Engineman White, of train No. 85, estimated the speed of train No. 93 to have been between 25 and 30 miles per hour at the time of the collision. Both of these employees stated that no lighted red lantern was displayed on the rear end of the tender of their engine during the course of switching in the yard, as required by the rules when road engines are switching in yards, although the engineman said that the engine cab and deck lights were burning. These employees also stated that the switch lamp of the east switch of the passing track was burning brightly, with the red indication plainly visible; Engineman White said he was relying upon that indication as a warning of danger, while Conductor Herrington said that after the accident he walked eastward along the main track and could see the red indication displayed from a distance of 40 car-lengths or more. Statements of other members of the crew of train No. 85 brought out nothing additional of importance.

Conclusions

This accident was caused by the failure of Engineman Merchant, of train No. 93, properly to control the speed of his train within yard limits.

The rules provide that second and inferior class trains must move within yard limits prepared to stop unless the main track is seen or known to be clear. According to the testimony, however, the engineman made a service application of the brakes when in the vicinity of the east yard-limit board at Beckett, reducing the speed from about 35 miles per hour to about 20 miles per hour. When Fireman Huggins and Head Brakeman Burchell, who were on the inside of the curve, called "all clear" they had mistaken the green indication of a marker on the caboose of train No. 85 on the passing track for the indication displayed by the east switch lamp of the passing track, although that switch lamp actually displayed a red indication; the engineman then released the brakes and began to work steam, increasing the speed within yard limits to between 25 and 30 miles per hour. Fireman Huggins and Head Brakeman Burchell afterwards said they merely meant to convey the impression that all "looked" clear so far as they could see, but the fact that they called "all clear" undoubtedly misled Engineman Merchant, however, that in no way excuses the engineman under the conditions as they existed in this case. The track was tangent for 3,760 feet approaching the switch, while the accident occurred 620 feet beyond the switch, and in view of the favorable weather conditions and unrestricted view, Engineman Merchant should have had no difficulty in personally observing conditions ahead and pre-

venting the accident had he kept his train under proper control.

All of the employees involved were experienced men, and at the time of the accident none of them had been on duty in violation of any of the provisions of the hours of service law.

Respectfully submitted,

W. P. BORLAND,

Director.